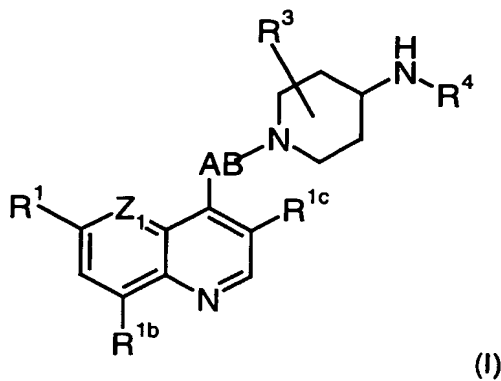


What is claimed is:

1. A compound according to formula (I):



wherein:

$Z_1$  is N or  $CR^{1a}$ ;

10  $R^1$  and  $R^{1a}$  are independently selected from H, nitro, halogen,  $(C_{1-3})$ alkylthio,  $(C_{1-3})$ alkyl, and  $(C_{1-3})$ alkoxy optionally substituted by  $(C_{1-3})$ alkoxy; or  $R^1$  and  $R^{1a}$  are joined together to form ethylenedioxy;

$R^{1b}$  is H or halogen;

15 with the proviso that when  $Z_1$  is N, then  $R^{1b}$  is H and when  $Z_1$  is  $CR^{1a}$  then  $R^1$  is not H;

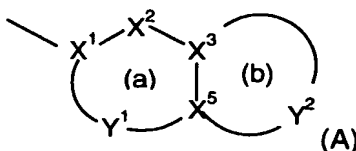
$R^{1c}$  is halogen;

20 AB is  $CHR^6-CO$  or  $CHR^6-CH_2$ ;

$R^6$  is H,  $NH_2$ ,  $-CH_2OH$ , or hydroxy;

$R^3$  is up to two substituents selected from H, halogen,  $(C_{1-3})$ alkyl, hydroxy $(C_{1-3})$ alkyl,  $CONH_2$ ,  $COOH$ ,  $-CH_2CONH_2$ ,  $-CH_2COOH$ ,  $-CONHCH_3$ , and hydroxy in the 3-position optionally substituted by  $(C_{1-3})$ alkyl;

- 5  $R^4$  is a group  $-U-R^5$  where  $R^5$  is a substituted or unsubstituted bicyclic carbocyclic or heterocyclic ring system (A):



containing up to four heteroatoms in each ring in which  
at least one of rings (a) and (b) is aromatic;

- 10  $X^1$  is C or N when part of an aromatic ring or  $CR^{14}$  when part of a non aromatic ring;  
 $X^2$  is N,  $NR^{13}$ , O,  $S(O)_x$ , CO or  $CR^{14}$  when part of an aromatic or non-aromatic ring or may in addition be  $CR^{14}R^{15}$  when part of a non aromatic ring;  
 $X^3$  and  $X^5$  are independently N or C;
- 15  $Y^1$  is a 0 to 4 atom linker group each atom of which is independently selected from N,  $NR^{13}$ , O,  $S(O)_x$ , CO and  $CR^{14}$  when part of an aromatic or non-aromatic ring or may additionally be  $CR^{14}R^{15}$  when part of a non aromatic ring,  
 $Y^2$  is a 2 to 6 atom linker group, each atom of  $Y^2$  being independently selected from N,  $NR^{13}$ , O,  $S(O)_x$ , CO and  $CR^{14}$  when part of an aromatic or non-
- 20 aromatic ring or may additionally be  $CR^{14}R^{15}$  when part of a non aromatic ring;

each of  $R^{14}$  and  $R^{15}$  is independently selected from H;  $(C_{1-4})$ alkylthio; halo;  $(C_{1-4})$ alkyl;  $(C_{2-4})$ alkenyl; hydroxy; hydroxy $(C_{1-4})$ alkyl; mercapto $(C_{1-4})$ alkyl;  $(C_{1-4})$ alkoxy; trifluoromethoxy; nitro; cyano; carboxy; amino or aminocarbonyl

- 25 optionally substituted by  $(C_{1-4})$ alkyl;

each  $R^{13}$  is independently H; trifluoromethyl;  $(C_{1-4})$ alkyl optionally substituted by hydroxy, carboxy,  $(C_{1-4})$ alkoxy,  $(C_{1-6})$ alkylthio, halo or trifluoromethyl;  $(C_2-$

4)alkenyl; or aminocarbonyl wherein the amino group is optionally substituted (C<sub>1</sub>-  
4)alkyl;

each x is independently 0, 1 or 2; and

U is CO, SO<sub>2</sub> or CH<sub>2</sub>; or a pharmaceutically acceptable salt thereof.

5

2. A compound according to claim 1 wherein R<sup>1</sup> is F, Cl, OCH<sub>3</sub>, methyl, or SCH<sub>3</sub>.

3. A compound according to claim 1 R<sup>1a</sup> is H, OCH<sub>3</sub>, OCH<sub>2</sub>CH<sub>2</sub>OCH<sub>3</sub>.

10 4. A compound according to claim 1 wherein R<sup>1b</sup> is H or F.

5. A compound according to claim 1 wherein R<sup>1c</sup> is Cl or F.

6. A compound according to claim 1 wherein R<sup>3</sup> is H, OH, OCH<sub>3</sub>, or CH<sub>2</sub>OH.

15

7. A compound according to claim 1 wherein R<sup>6</sup> is H or OH.

8. A compound according to claim 1 wherein the group -U- is -CH<sub>2</sub>-.

20 9. A compound according to claim 1 wherein R<sup>5</sup> is:

benzo[1,2,5]thiadiazol-5-yl;

4H-benzo[1,4] thiazin-3-one-6-yl;

2,3-dihydro-benzo[1,4]dioxin-6-yl;

benzo[1,2,3]thiadiazol-5-yl;

25 3-oxo-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl;

7-fluoro-3-oxo-3,4-dihydro-2H-benzo[1,4] oxazin-6-yl;

2-oxo-2,3-dihydro-1H-pyrido[2,3-b][1,4]thiazin-7-yl;

2,3-Dihydro-[1,4]dioxino[2,3-c]pyridin-7-yl;

3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]oxazin-6-yl;

30 [1,2,3]thiadiazolo[5,4-b]pyridin-6-yl;

3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-yl;

7-chloro-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-yl; or

7-fluoro-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-yl.

10. A compound according to claim 1 which is:

6-({1-[(Racemic)-2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-2-hydroxy-ethyl]-piperidin-4-ylamino}-methyl)-4H-pyrido[3,2-b][1,4]oxazin-3-one

5 Dihydrochloride;

(Racemic)-1-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-2-{4-[(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-piperidin-1-yl}-ethanol Dihydrochloride;

{1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-piperidin-4-yl}-(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amine Dihydrochloride;

10 {1-[2-(3-Chloro-6-methoxy-quinolin-4-yl)-ethyl]-piperidin-4-yl}-(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amine Dihydrochloride;

6-(((cis)-1-[2-(3-Chloro-6-methoxy-quinolin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b][1,4]oxazin-3-one Dihydrochloride Enantiomer 1;

15 6-(((cis)-1-[2-(3-Chloro-6-methoxy-quinolin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b][1,4]oxazin-3-one Dihydrochloride Enantiomer 2;

6-(((cis)-1-[2-(3-Chloro-6-methoxy-quinolin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one Dihydrochloride Enantiomer 1;

20 6-(((cis)-1-[2-(3-Chloro-6-methoxy-quinolin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one Dihydrochloride Enantiomer 2;

6-(((cis)-1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b][1,4]oxazin-3-one Dihydrochloride Enantiomer 1;

6-(((cis)-1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b][1,4]oxazin-3-one Dihydrochloride Enantiomer 2;

30 6-(((cis)-1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one Dihydrochloride Enantiomer 1;

6-(((cis)-1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one Dihydrochloride Enantiomer 2;

- 6-((1-[2-(3-Chloro-6-methoxyquinolin-4-yl)ethyl]piperidin-4-yl amino)methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Trihydrochloride;
- 6-((1-[2-(3-chloro-6-methoxyquinolin-4-yl)ethyl]piperidin-4-yl amino)methyl)-4*H*-pyrido[3,2-*b*][1,4]oxazin-3-one Trihydrochloride;
- 5 6-((1-[2-(3-Chloro-6-methoxynaphthyridin-4-yl)ethyl]piperidin-4-yl amino)methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Dihydrochloride;
- 6-((1-[2-(3-chloro-6-methoxynaphthyridin-4-yl)ethyl]piperidin-4-yl amino)methyl)-4*H*-pyrido[3,2-*b*][1,4]oxazin-3-one Dihydrochloride;
- 10 6-(((trans)-1-[2-(3-Chloro-6-methoxyquinolin-4-yl)ethyl]3-hydroxypiperidin-4-yl amino)methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Trihydrochloride enantiomer 2;
- 6-(((trans)-1-[2-(3-Chloro-6-methoxyquinolin-4-yl)ethyl]3-hydroxypiperidin-4-yl amino)methyl)-4*H*-pyrido[3,2-*b*][1,4]oxazin-3-one Trihydrochloride enantiomer 2;
- 6-(trans)-1-[2-(3-Chloro-6-methoxyquinolin-4-yl)ethyl]3-hydroxypiperidin-4-yl amino)methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Trihydrochloride enantiomer 1;
- 15 6-(trans)-1-[2-(3-Chloro-6-methoxyquinolin-4-yl)ethyl]3-hydroxypiperidin-4-yl amino)methyl)-4*H*-pyrido[3,2-*b*][1,4]oxazin-3-one Trihydrochloride enantiomer 1;
- 6-((1-[2-(3-Chloro-6-methoxyquinolin-4-yl)ethyl]4-hydroxymethylpiperidin-4-ylamino)methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Dihydrochloride;
- 6-((1-[2-(3-Chloro-6-fluoro-5-methoxy-quinolin-4-yl)-ethyl]-piperidin-4-ylamino)-methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Dihydrochloride;
- 20 6-((1-[2-(3-Chloro-6-methyl-[1,5]naphthyridin-4-yl)-ethyl]-piperidin-4-ylamino)-methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Dihydrochloride;
- {1-[2-(3-Chloro-6-methyl-[1,5]naphthyridin-4-yl)-ethyl]-piperidin-4-yl)-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-amine Dihydrochloride;
- 25 6-((1-[2-(3-Chloro-6-fluoro-quinolin-4-yl)-ethyl]-piperidin-4-ylamino)-methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Dihydrochloride;
- {1-[2-(3-Chloro-6-fluoro-quinolin-4-yl)-ethyl]-piperidin-4-yl)-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-amine Dihydrochloride;
- 6-((1-[2-(3, 6-Dichloro-quinolin-4-yl)-ethyl]-piperidin-4-ylamino)-methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Dihydrochloride;
- 30 {1-[2-(3,6-Dichloro-quinolin-4-yl)-ethyl]-piperidin-4-yl)-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-amine Dihydrochloride;
- (cis)-1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-amino]-piperidin-3-ol Dihydrochloride
- 35 Enantiomer 1;

(cis)-1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-4-[(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-piperidin-3-ol Dihydrochloride  
Enantiomer 2;

6-({1-[2-(3-Fluoro-6-methoxyquinolin-4-yl)ethyl]piperidin-4-yl amino)methyl)-  
5 4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one dihydrochloride;

{1-[2-(3-Fluoro-6-methoxy-quinolin-4-yl)-ethyl]-piperidin-4-yl}-(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amine dihydrochloride;

cis-4-[(2,3-Dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-1-[2-(3-  
10 fluoro-6-methoxy-quinolin-4-yl)-ethyl]-piperidin-3-ol Enantiomer 2 dihydrochloride;

cis-4-[(2,3-Dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-1-[2-(3-  
fluoro-6-methoxy-quinolin-4-yl)-ethyl]-piperidin-3-ol dihydrochloride dihydrochloride  
Enantiomer 1;

{1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-2-hydroxyethyl]-piperidin-  
15 4-yl}-(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amine Dihydrochloride  
Enantiomer 1;

6-({1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-2-hydroxy-ethyl]-  
piperidin-4-ylamino}-methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Dihydrochloride  
Enantiomer 1;

6-({1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-2-hydroxy-ethyl]-  
20 piperidin-4-ylamino}-methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Dihydrochloride  
Enantiomer 2;

{6-(trans)-1-[2-(3-Chloro-6-methoxyquinolin-4-yl)ethyl]-3-hydroxypiperidin-4-  
yl}-(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)amine Enantiomer 2;

(trans)-6-({1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-3-  
25 hydroxy-piperidin-4-ylamino}-methyl)-4*H*-pyrido[3,2-*b*] [1,4]-thiazin-3-one  
Dihydrochloride Enantiomer 2;

trans-6-({1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-3-hydroxy-  
piperidin-4-ylamino}-methyl)-4*H*-pyrido[3,2-*b*] [1,4] oxazin-3-one Trihydrochloride  
30 Enantiomer 2;

trans-6-({1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-3-hydroxy-  
piperidin-4-ylamino}-methyl)-4*H*-pyrido[3,2-*b*] [1,4] thiazin-3-one dihydrochloride  
Enantiomer 1;

6-(((3*R*,4*r*,5*S*)-1-[2-(3-Chloro-6-methoxy-quinolin-4-yl)-ethyl]-3,5-dihydroxy-  
35 piperidin-4-ylamino))-methyl)-4*H*-pyrido[3,2-*b*][1,4]oxazin-3-one dihydrochloride;

- 6-({1-[2-(3-Fluoro-6-methoxyquinolin-4-yl)ethyl]piperidin-4-yl amino)methyl)-  
4*H*-pyrido[3,2-*b*][1,4]oxazin-3-one dihydrochloride;
- {1-[2-(3-Bromo-6-methoxy-quinolin-4-yl)-ethyl]-piperidin-4-yl}-(2,3-dihydro-  
[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-amine Dihydrochloride;
- 5        cis-1-[2-(3-Chloro-6-methoxy-quinolin-4-yl)-ethyl]-4-[(2,3-dihydro-  
[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-amino]-piperidin-3-ol Dihydrochloride  
Enantiomer 1;
- cis-1-[2-(3-Chloro-6-methoxy-quinolin-4-yl)-ethyl]-4-[(2,3-dihydro-  
[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-amino]-piperidin-3-ol Dihydrochloride  
10      Enantiomer 2;
- 1-{2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl}-*N*-(2,3-  
dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-4-piperidinamine dihydrochloride;
- 7-{{{1-[2-(3,8-Difluoro-6-(methoxy)-4-quinolinyl]ethyl)-4-  
piperidinyl]amino)methyl}-1*H*-pyrido[2,3-*b*][1,4]thiazin-2(3*H*)-one dihydrochloride;
- 15        6-{{{1-[2-(3,8-Difluoro-6-(methoxy)-4-quinolinyl]ethyl)-4-  
piperidinyl]amino)methyl}-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dinarydrochloride;
- 6-{{{1-[2-(3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl)-4-  
piperidinyl]amino)methyl}-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride;
- 1-[2-(3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl)-*N*-([1,3]dioxolo[4,5-  
20      *c*]pyridin-6-ylmethyl)-4-piperidinamine dihydrochloride;
- {1-[2-(9-Chloro-2,3-dihydro-[1,4]dioxino[2,3-*f*]quinolin-10-yl)-ethyl]-piperidin-  
4-yl}-(2,3-dihydro-[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-amine dihydrochloride;
- N*-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-1-{2-[3-fluoro-6-  
(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinamine dihydrochloride;
- 25        *N*-(2,3-Dihydro-1*H*-pyrido[3,4-*b*][1,4]thiazin-7-ylmethyl)-1-{2-[3-fluoro-6-  
(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinamine dihydrochloride;
- 6-{{{1-[2-(3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-4-  
piperidinyl]amino)methyl}-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride;
- 7-{{{1-[2-(3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-4-  
30      piperidinyl]amino)methyl}-1*H*-pyrido[2,3-*b*][1,4]thiazin-2(3*H*)-one dihydrochloride;
- 3-{{{1-[2-(3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-4-  
piperidinyl]amino)methyl}-8-hydroxy-1(2*H*)-isoquinolinone dihydrochloride;

- 3-(((1-(2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-4-piperidinyl)amino)methyl)-5*H*-pyridazino[3,4-*b*][1,4]thiazin-6(7*H*)-one dihydrochloride;
- 6-(((1-(2-[3-Fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride;
- 5 *N*-(2,3-Dihydro[1,4]oxathiino[2,3-*c*]pyridin-7-ylmethyl)-1-(2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-4-piperidinamine dihydrochloride;
- 1-(2-[3-Fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-*N*-([1,3]oxathiolo[5,4-*c*]pyridin-6-ylmethyl)-4-piperidinamine dihydrochloride;
- 10 7-Fluoro-*N*-(1-(2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide dihydrochloride;
- N*-(1-(2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-4-piperidinyl)-2-oxo-2,3-dihydro-1*H*-pyrido[2,3-*b*][1,4]thiazine-7-carboxamide dihydrochloride;
- 15 *N*-(1-(2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide;
- N*-(1-(2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]oxazine-6-carboxamide;
- (3*R*,4*S*)-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-(2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-3-piperidinol dihydrochloride
- 20 Enantiomer 1;
- 6-(((3*R*,4*S*)-1-(2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-3-hydroxy-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride;
- 25 6-(((3*R*,4*S*)-1-(2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-3-hydroxy-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride;
- (3*R*,4*S*)-4-[(2,3-dihydro[1,4]dioxino[2,3-*b*]pyridin-7-ylmethyl)amino]-1-(2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-3-piperidinol dihydrochloride;
- 30 6-(((3*S*,4*R*)-1-(2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-3-hydroxy-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer 2;
- N*-((3*S*,4*R*)-1-(2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-3-hydroxy-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-
- 35 carboxamide hydrochloride Enantiomer 2;

7-[[[(3*R*,4*S*)-1-{2-[3,8-difluoro-6-(methoxy)-4-quinoliny]ethyl}-3-hydroxy-4-piperidinyl)amino]methyl]-1*H*-pyrido[2,3-*b*][1,4]thiazin-2(3*H*)-one dihydrochloride Enantiomer 1;

5 6-[[[(3*R*,4*S*)-1-{2-[3,8-difluoro-6-(methoxy)-4-quinoliny]ethyl}-3-hydroxy-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer 1;

(3*R*,4*S*)-1-{2-[3,8-difluoro-6-(methoxy)-4-quinoliny]ethyl}-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-piperidinol dihydrochloride dihydrochloride Enantiomer 1;

10 6-[[[(3*R*,4*S*)-1-{2-[3,8-difluoro-6-(methoxy)-4-quinoliny]ethyl}-3-hydroxy-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride;

*N*-[(4-fluoro-1*H*-benzimidazol-2-yl)methyl]-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinamine;

15 1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-*N*-(1,5,6,7-tetrahydro-1,8-naphthyridin-2-ylmethyl)-4-piperidinamine dihydrochloride;

*N*-(3-cinnolinylmethyl)-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinamine dihydrochloride;

*N*-(2,1,3-benzothiadiazol-5-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinamine dihydrochloride;

20 1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-*N*-([1,3]thiazolo[5,4-*b*]pyridin-6-ylmethyl)-4-piperidinamine dihydrochloride;

*N*-(3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazin-6-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinamine dihydrochloride;

25 *N*-(1,3-benzothiazol-5-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinamine dihydrochloride;

1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-*N*-([1,2,3]thiadiazolo[5,4-*b*]pyridin-6-ylmethyl)-4-piperidinamine dihydrochloride;

7-[[[(1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinyl)amino]methyl]-1*H*-pyrido[2,3-*b*][1,4]thiazin-2(3*H*)-one dihydrochloride;

30 *N*-(2,3-dihydro[1,4]dioxino[2,3-*b*]pyridin-7-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinamine dihydrochloride;

*N*-(2,3-dihydro[1,4]oxathiino[2,3-*c*]pyridin-7-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinamine dihydrochloride;

- 4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-*N*-methyl-4-piperidinecarboxamide dihydrochloride;
- 4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinecarboxamide dihydrochloride;
- 5 4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-*N*-methyl-4-piperidinecarboxamide dihydrochloride;
- 4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinecarboxamide dihydrochloride;
- 10 1-{2-[3-chloro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-4-piperidinecarboxamide dihydrochloride;
- (4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidiny]methanol dihydrochloride;
- 15 *N*-[1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-(hydroxymethyl)-4-piperidiny]-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide hydrochloride;
- N*-(1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidiny)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]oxazine-6-carboxamide hydrochloride;
- 20 *N*-(1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidiny)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide hydrochloride;
- 7-[[[(3*R*,4*S*)-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-3-hydroxy-4-piperidiny]amino]methyl]-1*H*-pyrido[2,3-*b*][1,4]thiazin-2(3*H*)-one dihydrochloride Enantiomer 1;
- 25 6-[[[(3*R*,4*S*)-1-{2-[3-chloro-8-fluoro-6-(methoxy)-4-quinoliny]ethyl}-3-hydroxy-4-piperidiny]amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer 1;
- (3*R*,4*S*)-1-{2-[3-chloro-8-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-piperidinol dihydrochloride;
- 30 2-{4-[(2,3-Dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidiny]-1-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethanol Dihydrochloride Hydrate Enantiomer 1;
- 2-{4-[(2,3-Dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidiny]-1-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethanol Dihydrochloride Hydrate

Enantiomer 2;

*racemic, cis* 4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinyl)methanol dihydrochloride;

5 *racemic, cis*-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinecarboxylic acid dihydrochloride;

*racemic, cis*-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinecarboxamide  
10 dihydrochloride;

1-{2-[3-chloro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-*N*-[(6-oxido-2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-yl)methyl]-4-piperidinamine dihydrochloride;

6-[[1-{2-[3-chloro-6-(methoxy)-1,5-naphthyridin-4-yl]-3-hydroxypropyl}-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride;

15 6-[[1-{2-(3,6-difluoro-4-quinolinyl)ethyl}-4-piperidinyl]amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride;

1-[2-(3,6-difluoro-4-quinolinyl)ethyl]-*N*-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-4-piperidinamine hydrochloride dihydrochloride;

6-[[1-{2-(3,6-difluoro-4-quinolinyl)ethyl}-4-piperidinyl]amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride;

6-[[1-{2-[3-chloro-6-fluoro-5-(methoxy)-4-quinolinyl]-1-methylethyl}-4-piperidinyl]amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride;

1-{2-[3-chloro-6-fluoro-5-(methoxy)-4-quinolinyl]ethyl}-*N*-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-4-piperidinamine dihydrochloride;

25 1-[2-(6-chloro-3-fluoro-4-quinolinyl)ethyl]-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-*N*-methyl-4-piperidinecarboxamide dihydrochloride;

2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidinyl}-1-[3-fluoro-6-(methoxy)-4-quinolinyl]ethanol dihydrochloride Enantiomer 2;

6-[[*trans*-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl]amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride

Enantiomer E2;

6-[[*trans*-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl]amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride

Enantiomer E2;

*trans*-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinol dihydrochloride  
Enantiomer E2;

5       6-[[*trans*-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-3-hydroxy-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one-dihydrochloride  
Enantiomer E2;

*trans*-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-3-piperidinol dihydrochloride;

10       *N-trans*-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide hydrochloride Enantiomer E2;

*N-trans*-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl)-2,3-dihydro[1,4]dioxino[2,3-*c*]pyridine-7-carboxamide hydrochloride  
Enantiomer E2;

15       *racemic, trans*-6-[[1-(2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-3-hydroxy-3-methyl-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride;

20       *Trans*-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-methyl-3-piperidinol dihydrochloride;

6-[[*trans*-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-methyl-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer E1;

25       *Trans*-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-methyl-3-piperidinol dihydrochloride;

6-[[*trans*-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-methyl-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer E2;

30       *Trans*-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-methyl-3-piperidinol dihydrochloride;

*N*-(3,4-dihydro-2*H*-pyrano[2,3-*c*]pyridin-6-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinamine dihydrochloride;

- {[(1-{2-[3-Fluoro-6-(methoxy-5-naphthyridin-4-yl)ethyl]-4-piperidiny]amino)methyl]-3,4-dihydro-1,8-naphthyridin-2-(1H)-one;  
 7-{[(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-4-piperidiny]amino)methyl]-2,3-dihydro-1,5-benzothiazepin-4(5H)-one;  
 5 *trans*-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinol dihydrochloride  
 Enantiomer E1;  
 6-{[(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-3-hydroxy-4-piperidiny]amino)methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride;  
 10 *trans*-6-{[(1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl)-3-hydroxy-4-piperidiny]amino)methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one Enantiomer E1;  
*trans*-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-3-piperidinol dihydrochloride;  
*trans*-6-{[(1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl)-3-hydroxy-4-piperidiny]amino)methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride;  
 15 *trans-N*-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-3-hydroxy-4-piperidiny)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide  
 hydrochloride Enantiomer E1;  
*trans-N*-((3*R*,4*R*)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-3-hydroxy-4-piperidiny)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]oxazine-6-  
 20 carboxamide Isomer E1 hydrochloride;  
*trans-N*-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-3-hydroxy-4-piperidiny)-2,3-dihydro[1,4]dioxino[2,3-*c*]pyridine-7-carboxamide Isomer E1  
 hydrochloride;  
 25 6-{[(*trans*-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-3-hydroxy-4-piperidiny]amino)methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one Enantiomer E1;  
 6-{[(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-4-methyl-4-piperidiny]amino)methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride;  
 6-{[(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-4-methyl-4-piperidiny]amino)methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride;  
 30 *N*-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-4-methyl-4-piperidinamine dihydrochloride;  
*N*-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-4-methyl-4-piperidiny)-2,3-dihydro-1,4-benzodioxin-6-sulfonamide;

*cis*-6-(((1-(2-[3-chloro-8-fluoro-6-(methoxy)-4-quinolinyl]ethyl)-3-fluoro-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer 1;

5 *cis*-1-{2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl}-*N*-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-3-fluoro-4-piperidinamine dihydrochloride Enantiomer 1;

*cis*-1-{2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl}-*N*-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-3-fluoro-4-piperidinamine dihydrochloride Enantiomer 2;

10 *cis*-6-(((1-(2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl)-3-fluoro-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride, Enantiomer 1;

*cis*-6-(((1-(2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl)-3-fluoro-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride, Enantiomer 2;

*cis*-1-{2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl}-*N*-(2,3-dihydro-1,4-benzodioxin-6-ylmethyl)-3-fluoro-4-piperidinamine dihydrochloride, Enantiomer 1;

*cis*-1-{2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl}-*N*-(2,3-dihydro-1,4-benzodioxin-6-ylmethyl)-3-fluoro-4-piperidinamine dihydrochloride, Enantiomer 2;

20 *cis*-6-(((1-(2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl)-3-fluoro-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride, Enantiomer 1;

*cis*-6-(((1-(2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl)-3-fluoro-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride, Enantiomer 2;

*cis-N*-(1-(2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl)-3-fluoro-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide hydrochloride Enantiomer 1;

30 6-((((3*S*,4*R*)-1-(2-[3-chloro-8-fluoro-6-(methoxy)-4-quinolinyl]ethyl)-3-hydroxy-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer E2;

*trans*-6-((1-(2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl)-3-hydroxy-piperidin-4-ylamino)-methyl)-4*H*-pyrido[3,2-*b*][1,4]oxazin-3-one trihydrochloride Enantiomer 1;

- trans-1-{2-[3-chloro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-piperidinol Enantiomer 1;
- trans-1-{2-[3-chloro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-piperidinol Enantiomer 2;
- 5 2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidinyl}-1-[3-fluoro-6-(methoxy)-4-quinolinyl]ethanol dihydrochloride Enantiomer 1;
- N*-(2,3-dihydro-1,4-benzodioxin-6-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinamine;
- (3*S*,4*R*)-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinol dihydrochloride Enantiomer 2;
- 10 (3*R*,4*S*)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-[[[1,3]oxathiolo[5,4-*c*]pyridin-6-ylmethyl)amino]-3-piperidinol dihydrochloride Enantiomer E1;
- 15 6-[[[1-{2-[3-chloro-8-fluoro-6-(methoxy)-4-quinolinyl]ethyl}-4-piperidinyl]amino)methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one;
- 1-{2-[3-chloro-8-fluoro-6-(methoxy)-4-quinolinyl]ethyl}-*N*-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-4-piperidinamine;
- (3*S*,4*R*)-1-[2-(3,6-dichloro-4-quinolinyl)ethyl]-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-piperidinol dihydrochloride Enantiomer E2;
- 20 6-[[[(3*S*,4*R*)-1-[2-(3,6-dichloro-4-quinolinyl)ethyl]-3-hydroxy-4-piperidinyl]amino)methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer E2;
- (3*S*,4*R*)-1-[2-(3-chloro-6-fluoro-4-quinolinyl)ethyl]-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-piperidinol dihydrochloride Enantiomer E2;
- 25 6-[[[(3*S*,4*R*)-1-[2-(3-chloro-6-fluoro-4-quinolinyl)ethyl]-3-hydroxy-4-piperidinyl]amino)methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer E2;
- 30 *N*-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-methyl-4-piperidinyl)-2,3-dihydro[1,4]dioxino[2,3-*c*]pyridine-7-carboxamide dihydrochloride;
- N*-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-methyl-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]oxazine-6-carboxamide;
- N*-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-methyl-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide;
- 35

*trans*-6-(((1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-3-methyl-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride Enantiomer E1;

5 *trans*-6-(((1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-3-methyl-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer E1;

*trans*-6-(((1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-3-methyl-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride Enantiomer E2; *trans*-6-(((1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-3-methyl-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer E2;

*trans*-4-[(2,3-dihydro-1,4-benzodioxin-6-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-4-quinolinyl]ethyl}-3-piperidinol hydrochloride Enantiomer E1;

15 *trans* -4-[(2,3-dihydro-1,4-benzodioxin-6-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinol dihydrochloride Enantiomer E2;

*trans* -4-[(2,3-dihydro-1,4-benzodioxin-6-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinol dihydrochloride Enantiomer E1;

(3*S*,4*R*)-1-{2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl}-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-piperidinol dihydrochloride Enantiomer E2;

(3*S*,4*R*)-1-{2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl}-4-[(2,3-dihydro-1,4-benzodioxin-6-ylmethyl)amino]-3-piperidinol dihydrochloride Enantiomer E2;

*N*-(2,3-dihydro-1-benzofuran-5-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinamine dihydrochloride;

25 6-(((1-{2-[3-fluoro-6-(methoxy)-4-quinolinyl]-2-hydroxyethyl}-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride Enantiomer E1;

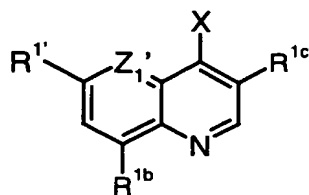
6-(((1-{2-[3-fluoro-6-(methoxy)-4-quinolinyl]-2-hydroxyethyl}-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride Enantiomer E2;

6-(((1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]-2-hydroxyethyl}-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride Enantiomer E2; 6-(((1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]-2-hydroxyethyl}-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride Enantiomer E1;

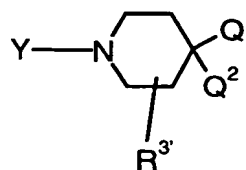
- 6-[[1-(2-[3-chloro-8-fluoro-6-(methoxy)-4-quinoliny]-2-hydroxyethyl)-4-piperidiny]amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride Enantiomer E1;
- 5 6-[[1-(2-[3-chloro-8-fluoro-6-(methoxy)-4-quinoliny]-2-hydroxyethyl)-4-piperidiny]amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride Enantiomer E2;
- 1-[3-chloro-8-fluoro-6-(methoxy)-4-quinoliny]-2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidiny}ethanol dihydrochloride Enantiomer E1;
- 10 1-[3-chloro-8-fluoro-6-(methoxy)-4-quinoliny]-2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidiny}ethanol dihydrochloride Enantiomer E2;
- 1-[3,8-difluoro-6-(methoxy)-4-quinoliny]-2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidiny}ethanol dihydrochloride Enantiomer E2;
- 1-[3,8-difluoro-6-(methoxy)-4-quinoliny]-2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidiny}ethanol dihydrochloride Enantiomer E1;
- 15 1-[3-chloro-6-(methoxy)-4-quinoliny]-2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidiny}ethanol dihydrochloride Enantiomer E2;
- 1-[3-chloro-6-(methoxy)-4-quinoliny]-2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidiny}ethanol dihydrochloride Enantiomer E1;
- 20 1-[3-chloro-6-(methoxy)-1,5-naphthyridin-4-yl]-2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidiny}ethanol dihydrochloride Enantiomer E2;
- 2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-fluoro-1-piperidiny}-1-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethanol dihydrochloride Enantiomer E2;
- 25 2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-fluoro-1-piperidiny}-1-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethanol dihydrochloride Enantiomer E1;
- 7-[[1-(2-[3,8-difluoro-6-(methoxy)-4-quinoliny]ethyl)-3-fluoro-4-piperidiny]amino]methyl]-1*H*-pyrido[2,3-*b*][1,4]thiazin-2(3*H*)-one dihydrochloride Enantiomer E2;
- 30 1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-*N*-[[8-(methoxy)-2,3-dihydro-1,4-benzodioxin-6-yl]methyl]-4-piperidinamine; and
- 1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-*N*-[(7-methyl-2,3-dihydro-1,4-benzodioxin-6-yl)methyl]-4-piperidinamine;
- 35 or a pharmaceutically acceptable salt thereof.

11. A process for preparing compounds of formula (I), and pharmaceutically acceptable derivatives thereof, which process comprises reacting a compound of formula (IV) with a compound of formula (V):

5



(IV)



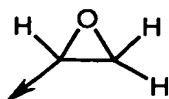
(V)

- 10 wherein  $Z1'$ ,  $R1'$ ,  $R1b'$ ,  $R1c'$  and  $R3'$  are  $Z1$ ,  $R1$ ,  $R1b$ ,  $R1c$  and  $R3$  as defined in formula (I) or groups convertible thereto;  $Q1$  is  $NHR4'$  or a group convertible thereto wherein  $R4'$  is  $R4$  as defined in formula (I) or groups convertible thereto and  $Q2$  is H or  $R3'$  or  $Q1$  and  $Q2$  together form an optionally protected oxo group;

- (i) X is  $A'-COW$ , Y is H;  
 15 (ii) X is  $CH=CH_2$ , Y is H;  
 (iii) X is oxirane, Y is H;  
 (iv) one of X and Y is  $CO_2RY$  and the other is  $CH_2CO_2RX$ ;

in which W is a leaving group, e.g. halo or imidazolyl;  $R^X$  and  $R^Y$  are  $(C_{1-4})$ alkyl;  $A'$  is A as defined in formula (I), or groups convertible thereto; and oxirane is:

20



- and thereafter optionally or as necessary converting  $Q1$  and  $Q2$  to  $NHR4'$ ;  
 converting  $A'$ ,  $Z1'R1'$ ,  $R1b'$ ,  $R1c'$ ,  $R3'$ , and  $R4'$  to A,  $Z1$ ,  $R1$ ,  $R1b$ ,  $R1c$ ,  $R3$ , and  $R4$ ;  
 converting A-B to other A-B, interconverting  $R1$ ,  $R1b$ ,  $R1c$ ,  $R3$ , and/or  $R4$ , and/or  
 25 forming a pharmaceutically acceptable derivative thereof.

12. A pharmaceutical composition comprising a compound according to claim 1 and a pharmaceutically acceptable carrier.

13. A method of treating bacterial infections in mammals which comprises  
5 administering to a mammal in need thereof an effective amount of a compound according to claim 1.